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**REMARKS**

This amendment is responsive to the Office Action of September 8, 2006. Examination and allowance of claims 1-8 are requested.

**The Office Action**

Claims 1, 2, 4, and 6 stand rejected under 35 U.S.C. § 102 as being anticipated by Kohler (US 3,355,882).

Claims 3, 5, 7, and 8 were indicated as containing allowable subject matter.

**Discussion**

**Claim 1** is directed to a Gifford-McMahon refrigerator. Such refrigerators are characterized by a force-driven displacer in a working chamber and by a device alternately supplying the working chamber with a high-pressure gas and a low-pressure gas (often helium). A Gifford-McMahon refrigerator may have one, two, or more stages. Each displacer is equipped with a central hollow chamber accommodating a regenerator. Gifford-McMahon refrigerators and the characteristics are described in Asami (US 5,481,879), of record.

By contrast, Kohler describes a Sterling refrigerator. A Sterling refrigerator has a compression space and an expansion space, formed by one or two pistons, as well as by a freezer and a cooler. A Sterling refrigerator is equipped with a regenerator, also (note all Figures of Kohler) arranged outside. The regenerator works in conjunction with an upstream freezer and a downstream cooler. A second regenerator may be arranged inside the displacer (Figure 10).

Claim 1 refers to a Gifford-McMahon refrigerator which conventionally have one regenerator inside a displacer and does not need a freezer or a cooler.

Kohler relates to a Sterling refrigerator and makes no suggestion regarding how to improve a Gifford-McMahon refrigerator. While leakage may occur through the gap between the displacer and cylinder wall of Kohler from the expansion space to the compression space, the solution of claim 1 to prevent such leakage is different from Kohler. Kohler proposes to provide the displacer with two annual seals 117, 118. By contrast, claim 1 proposes a further regenerator defined by

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embedding a material having a high thermal capacity within at least one of the surfaces that defines the gap.

Dependent **claim 4** distinguishes even more clearly over Kohler. Kohler does not show a Gifford-McMahon refrigerator with a displacer that houses two regenerators. In the illustrated embodiment, a first regenerator is disposed in the chamber for the central stream of gas and the other is disposed within the gap for the leak stream.

Accordingly, it is submitted that **claim 1 and claims 2, 4, 6, 7, and 8 dependent therefrom** now distinguish patentably and unobviously over Kohler.

**Claims 3 and 5**, which were indicated as containing allowable subject matter, have been placed in independent form. Accordingly, it is submitted that **claims 3 and 5** are now in condition for allowance.

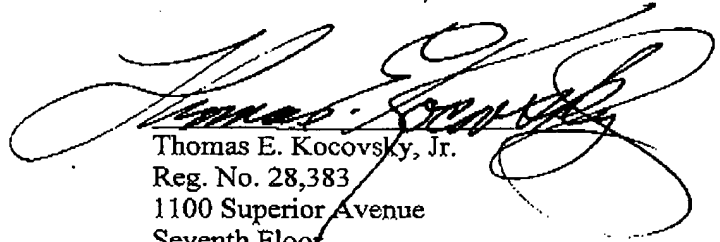
#### CONCLUSION

For the reasons set forth above, it is submitted that claims 1-8 distinguish patentably and unobviously over the references of record. An early allowance of all claims is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he is requested to telephone Thomas Kocovsky at (216) 861-5582.

Respectfully submitted,

FAY, SHARPE, FAGAN,  
MINNICH & McKEE, LLP



Thomas E. Kocovsky, Jr.  
Reg. No. 28,383  
1100 Superior Avenue  
Seventh Floor  
Cleveland, OH 44114-2579  
(216) 861-5582

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